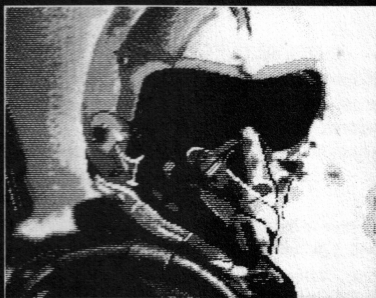# F-16
COMBAT PILOT

Flight Manual

Digital Integration

The Real World of Simulation

F-16 COMBAT PILOT
AMIGA, ATARI ST/STE, IBM PC

INTRODUCTION

Welcome to the world of the F-16 combat pilot. In this award-winning flight simulation you will experience the thrills of flying one of the world's most advanced multi-role combat aircraft on missions ranging from air-to-air interception to battlefield attack. In addition to single missions, F-16 Combat Pilot allows you to participate in Operation Conquest - a multi-mission strategic conflict involving real-time interaction between aircraft, ground forces and military installations. Your experience as an F-16 pilot begins in the first of eight squadrons. Each squadron is responsible for controlling its airspace of roughly 20,000 sq. miles.

LOADING INSTRUCTIONS

AMIGA
1. Turn off computer
2. Insert disc into drive DF0
3. Turn on computer
4. Follow on screen prompts

ATARI ST/STE
1. Turn off computer
2. Insert disc into drive A
3. Turn on computer
4. Follow on screen prompts

IBM CGA, EGA or Hercules
From floppy disc:
A>**F16** (return)

From hard disc root directory:
C>**CD F16** (return)
C>**F16** (return)
n.b. Disc 1 must be left in floppy drive.
If you are using F-16 with DOS 5, load by typing **LOADFIX F16.EXE** (return).

To install on hard disc:
Type **INSTALL C**: (return)
Follow screen prompts
Function keys F1, F2 etc may be used for menu selections.

KEYWORD PROTECTION

Select the appropriate language after loading the program. Prior to take-off you will be prompted with a message which will appear above the centre MFD. You are required to enter a security keyword from the table attached. Simply find the word that corresponds to the page, paragraph and word number and type it in, followed by enter.

CONTROLS

	ST/AMIGA	IBM PC
Roll right	6 (right)*	6 (right)*
Roll left	4 (left)*	4 (left)*
Pitch up	2 (back)*	2 (back)*
Pitch down	8 (fwd)*	8 (fwd)*
Rudder left	1 (left)**	Insert
Rudder right	3 (right)**	Delete
Centre controls	mouse left key	5
Increase throttle	+ (fwd)**	+
Decrease throttle	- (back)**	-
Throttle slam open	+ and Shift	+ and Shift
Throttle slam shut	- and Shift	- and Shift
Undercarriage	U (fire)**	U
Airbrakes	backspace	backspace
Wheelbrakes	B	B
Jettison fuel tanks	J and F	J and F
Jettison all	J and A	J and A
Eject	Ctrl E	Ctrl E

DISPLAYS

Left MFD	F1	F1
Centre MFD	F2	F2
Right MFD	F3	F3
Target select	F9	F9
Target designate	F10	F10
Pitch bars on/off	K	K
HUD on/off	H	H
Dogfight mode	D	D

WEAPONS

Weapons select	Tab	Tab
Chaff	C	C
Flares	F	F
Fire weapons	Space (fire)*	Space (fire)*

* joystick 1	* joystick
** joystick 2	or mouse

2

OTHER KEYS	**ST/AMIGA**	**IBM PC**
Pause/Continue	P	P
Quit	Ctrl Esc	Ctrl Esc

UFCP

Mode select	F5	F5
Channel select	F6	F6
Autopilot	F7	F7
Recce pod on/off	F8	F8

COMMS

Transmit cal!sign	T	T
Request GCA	G	G

COCKPIT VIEW

Forward	Cursor keys	Home
Left		End
Right		Pg Dn
Rear		Pg Up
	& Shift to hold view	& Shift to hold view

MENUS

Select	Mouse left	Home
Cancel	Mouse right	Pg Up

CREWROOM

Move the screen pointer and click on the icon (e.g. pilot)

QUICKSTART - (PILOT)

Bypasses the preflight briefing and weapon selection. Your aircraft is loaded with a general purpose weapon mix and no waypoints are loaded into the navigation computer. Flights take place on the Training map with no adverse weather conditions. No pilot's log is active.

PILOT'S LOG - (FILING CABINET)

Records name, callsign, squadron and other information. Make sure that you open a new pilot's

log before your first flight or load your old pilot's log by clicking on the filing cabinet. You will need a preformatted blank disc for your pilot's log. n.b. Amiga owners must preformat a new disc using the Workbench and also use the INIT command within the program when setting up a new log disc.

Tip: If you crash and "die" your pilot's log will be erased. If you do not wish to lose previous achievements (e.g. missions passed) reload the program when prompted to insert the pilot's log disc during your debrief. After reloading the game, click on the filing cabinet and open your pilot's log. In this way you will only lose the flight in which you "died".

FLIGHT CONTROLS (DESKTOP COMPUTER)
The aircraft may be flown with keyboard, joystick or mouse.

DEMONSTRATION MODE (WINDOW)
Takes you for a short combat flight from take-off to landing.

AIRCRAFT TECHNICAL DATA (AIRCRAFT POSTER)
WEAPON TECHNICAL DATA (WEAPON POSTER)

OPERATION CONQUEST RESTORE - (PILOT'S FLIGHT CASE)
Select this option to continue with your saved campaign.

MISSION SELECTION (DOOR)
Select to leave crewroom.

MISSION SELECTION SCREEN

Each side of the pentagon represents a mission category:
• **Scramble** - air-to-air interception. Objective - intercept and destroy two incoming enemy fighters, then return to base.
• **Hammerblow** - offensive counterair operations. Various ground attack missions against military targets including airfields, military bases, command centres, early warning radar installations, SAM and AAA sites. Objective - destroy assigned targets and return to base.
• **Deepstrike** - Ground attack on strategic installations including fuel depots, power stations and factories. Objective - destroy assigned targets and return to base.
• **Tankbuster** - battlefield close air support. Objective - locate and destroy tank battalions and return to base.
• **Watchtower** - reconnaissance. Objective - fly over designated targets, transmit data back to HQ using ATARS pod and return to base.
• **Operation Conquest** - in the centre of the pentagon is the icon to select the strategic

campaign. This option is not available until you have successfully flown a mission in each category. The objective is to destroy sufficient enemy installations and aircraft in order to force him into surrender. This will take several missions during which the enemy will also be trying to force the allies to surrender. After each successful campaign you will be promoted to the next squadron. n.b. Your pilot's log is not updated until you complete the campaign. You may save the campaign after any debrief (R & R option) and restore the game later by clicking on the pilot's flight case in the crew room. *Do not use your pilot's log name as the campaign save name.*

- **Training** - (two-seat cockpit icon) Select for the training map.
- **Gladiator** - (top right hand icon)

One-on-one dogfight. Use this option to link two computers (IBM to IBM, Amiga to Amiga, Amiga to ST) and fly against a human opponent. Ensure that both computers are assigned the same BAUD rate (defaults to 9600). One player should choose RED LEADER, the other BLUE LEADER. Select TAKE OFF to start mission. Both computers should confirm that the opponent has been located. Note his range and bearing. His range, bearing and altitude will be displayed on the UFCP whenever he flies above 500ft (use T mode of UFCP).

To play Gladiator you will need to link the computers with an RS232 null modem cable. These are available by mail order from:

> Digital Integration Ltd.
> Watchmoor Trade Centre
> Watchmoor Road, Camberley, Surrey, GU15 3AJ
> 0276 684959

PRE-FLIGHT BRIEFING

Mode selector switches:
MISSION - mission objectives (not applicable to Operation Conquest)
TARGETS - selects targets to be displayed e.g. fuel depots, command centres, SAM sites, early warning radar sites, military bases, tanks, power stations, factories.
REPORT - intelligence update
WEATHER - met. report
WAYPOINT - flight planner. Having made a note of the target coordinates for the mission, move the screen pointer to the correct map position and press select (left mouse button on Amiga & ST, Home key on PC). Up to five waypoints may be plotted in this way. To cancel a waypoint, place the cursor over the map position and press cancel (right mouse button on Amiga & ST, PgUp key on PC). All waypoints may be cleared by clicking on "Clear All". Waypoint 0 is always set to your take-off position.

COMMAND - aircraft assignment (Operation Conquest only)

Additional F-16 aircraft can be instructed to fly bombing missions in parallel to your own. Selecting the airfield will confirm aircraft availability. Set its target coordinates using the waypoint method. n.b. The other F-16 aircraft fly in real time and may not have returned from their mission when you are planning your next flight. A maximum of four F-16s may be assigned at any one time.

WEAPON LOADING

On the right hand side of the pre-flight briefing screen you will see the **WEAPONS** selector. Click on this to move to the weapon loading screen. For any of the five single mission categories e.g. Scramble, etc., you may load your weapons by selecting the "ground crew recommended" option. All weapons may be removed from the aircraft by selecting "clean". If you wish to load up weapons of your own choice, first move the pointer to the required weapon name e.g. AIM-120, AGM-65E etc, and select (left mouse button on ST/Amiga, Home on PC). The weapon name will appear with the number of the weapon type loaded. Move the cursor to the weapon loading point and press select again. The weapons should appear, loaded symmetrically on the aircraft. Further weapons may be loaded by repeating this procedure. If the weapons do not appear try moving the cursor position slightly. Note that the heavier weapons may only be loaded on the inner pylons. The gun and internal fuel are always preloaded.

During Operation Conquest the crew's choice option does not function since the crew will not be aware of your objectives. Load your weapons manually. You may store up to 3 "favourite" weapon configurations by using the STORE option for PILOT 1, PILOT 2 and PILOT3. Reload these configurations by simply selecting LOAD for the corresponding PILOT. Be prepared for some weapons to be unavailable occasionally.

WEAPON TYPES:

AIM-120A AMRAAM - radar-guided medium range air-to-air missile. Max. range 30 miles.
AIM-9M Sidewinder - infra-red short range air-to-air missile. Max. range 11 miles.
(Both of the above missiles can only be used with the air radar active and the lock-on diamond active. Range will be less at low altitude.)
AGM-88A HARM - radar-guided anti-radiation missile for use against EWR sites.
AGM-65D Maverick - infra-red air-to-ground missile for use against tanks. This weapon is normally used with the LANTIRN system whereby the targets are acquired automatically. However, it is possible to lock an IR Maverick onto a target without LANTIRN providing that the target is within visual range i.e. approximately 3 miles. Having armed your weapon by selecting it, the first press of the fire button will "pickle" the target i.e. lock on. The second press will launch the missile. This only works for "hot" targets e.g. tanks.

AGM-65E Maverick - laser-guided air-to-ground missile for use against all ground targets except runways. This weapon requires LANTIRN. Both types of Maverick have a range of about 9 miles.

The Lantirn system will automatically acquire each ground target as it comes into range. As soon as the lock-on diamond appears, fire the missile. Mavericks and HARM can only be used with the ground radar on and the lock-on diamond active.

Durandal - anti-runway bomb.

External fuel tank - up to 3 may be carried if the ATARS pod is not fitted.

Mk 82, Mk 83 and Mk 84 bombs - free fall bombs.

ATARS - reconnaissance pod - can be fitted only on the centre line hardpoint.

LANTIRN - night vision & laser guidance system . Take it if available - you cannot use laser-guided Mavericks without it. Always fitted at night. Attaches either side of engine intake.

M61A1 Internal cannon - always fitted - 500 rounds max. Range approximately 2000 feet. Only used for air-to-air dogfights. Requires practice.

Chaff & flares - 30 of each fitted for use as decoys against incoming missiles. Active only for short period - roughly 30 secs.

MET OFFICE - use to select weather conditions. (not available in Operation Conquest)

TAKE OFF - leave pre-flight briefing room.

FLIGHT - GETTING AIRBORNE AND LANDING.

TAKE - OFF

All missions, with the exception of Scramble, begin in the hangar. Once you are in the cockpit enter the keyword if necessary and then open the throttle to between 65 and 70% (hold down the + key). Do not allow your speed to exceed 50 kts as you taxi to a runway. Use your brakes to slow down if necessary. Once you are on the runway, turn to line up with the centre line and open the throttle to 100% (hold down the + key). Release the + key and press again to activate reheat (maximum thrust). As your speed approaches 150 kts, pull back on the joystick to raise the nose of the aircraft and take-off. Remember to raise the undercarriage shortly after take-off otherwise it will be damaged and remain in the down position. Select your first waypoint on the UFCP using key F6 and turn towards your target.

FLYING TO A TARGET

Select your required waypoint on the Up Front Control Panel (UFCP)and turn your aircraft until your heading matches the bearing of the waypoint. To achieve the maximum turn rate, bank your aircraft onto a wing tip and pull on the joystick (elevator control). This technique is particularly important during a dogfight when you will be avoiding enemy missiles and using chaff and flares. n.b. If you pull or push g for long periods you will "black out" and "red out" respectively. You will regain conciousness in a few seconds.

For clarification, true airspeed is the speed of the aircraft through the air. Indicated airspeed (IAS) as shown of the MFD is true airspeed multiplied by the square root of air density and since air density reduces with altitude, it follows that for any given true airspeed the indicated airspeed will also reduce with altitude. This is important to a pilot since the indicated airspeed when the aircraft stalls will be independent of altitude for any given aircraft weight. The navigation computer uses true airspeed to calculate the estimated time to arrival.

LANDING

Landing your aircraft safely can be the most difficult part of the mission if you are an inexperienced pilot. Approach the airfield flying as slowly as possible and lined up with the runway. nb. If you slow down too much then the aircraft will stall and the nose will drop. This occurs typically between 100kts and 140 kts depending upon the aircraft weight.

Use key F5 to put the UFCP into Airfield mode then use the channel select key F6 to select the desired airfield A0 to A7. The UFCP will display the range and bearing and time to arrival. Runways are aligned North-South, East-West or diagonally. Approaching from the South will require both aircraft heading and airfield bearing to equal 360°. Likewise, if you approach the airfield from the North, the heading and bearing should both equal 180°. If this condition is not achieved with at least 3 or 4 miles to touchdown then the chances are you will not be lined up with the runway when you arrive at the touchdown.

In order to get lined up correctly a common technique is to adjust your aircraft heading so that it is approximately double the airfield bearing e.g. if the airfield bearing is 40, fly on a course of approximately 80, or if the airfield bearing is 330 fly on a course of 300. As you get nearer to the airfield you should see the bearing gradually change towards 360. Continue to adjust your heading to roughly twice the bearing by turning slowly towards the airfield e.g. bearing of 20 and a heading of 40, a bearing of 10 and a heading of 20, and so on. As the bearing continues to approach 360 so will your heading and the result should be both heading and bearing equal to 360 and you are lined up with the runway. The same principle applies for a landing due South, with heading and bearing of 180.

With the throttle at 80% and the undercarriage down your speed should be between 120 and 140 knots. Use your airbrake if necessary. Adjust your altitude to under 2500 feet. Keep the nose of the aircraft approximately 5° above the horizon and this will ensure a good approach speed and a rate of descent of roughly 11 feet per second. If you find that you are too low, open the throttle slightly and this will reduce the rate of descent. Attempting to adjust your rate of descent with pitch angle will cause major fluctuations in speed or even a stall and will probably lead to crashing as you overcorrect for errors. As soon as the ILS display is active use it instead of the UFCP to ensure a good approach. Just prior to touchdown pull the nose of the aircraft up very slightly (flare) to reduce the rate of descent to less than 10 feet per second. It is possible

to land with the wheels up but only if the undercarriage is damaged and your VSI must be less than 5 feet per second. After touchdown, reduce the throttle setting to 60% (minimum) and apply the brakes by holding down key B until the aircraft stops. To complete the mission you must taxi into a hanger.

AUTOLAND OPTION
During your approach to land at an airfield, you may select the autoland feature providing that the ILS display is active and the localiser and glideslope needles are displayed. Follow the advice above until the localiser and glideslope needles appear on the ILS display and then select autopilot key F7. The autopilot will confirm that it has control and it will steer your aircraft towards the runway. Continue to monitor your approach as the autopilot is not infallible.

GROUND CONTROL APPROACH (GCA) OPTION
Select your desired airfield on the UFCP and transmit your callsign (key T). Request a GCA (key G) and follow instructions from the control tower.

One last point. If you get into serious trouble you can always eject..........

DEBRIEF

After landing (or crashing!) you will see the debrief screen with a summary of your performance during the mission. If appropriate, you will be given your Kill Ratio (KR) and your Mission Effectiveness (ME).

KR = total number of targets destroyed / number of weapons used
ME = number of assigned targets destroyed / total number of assigned targets

After your debrief you will have the opportunity to inspect and repair any damage to your aeroplane. Move cursor to plan view of aircraft and select.

INSTRUMENT PANEL & HUD

MULTI FUNCTION DISPLAYS (MFD):
Each of the following functions may be selected on any MFD using keys F1, F2, F3.
Air Radar - shows range and bearing of enemy aircraft. Range approximately 30 miles.
(a) **Track-While-Scan** mode (TWS). Can track up to 4 enemy aircraft simultaneously, giving range in miles (top LH corner), altitude in thousands of feet (top RH corner) and bearing (bottom RH corner). Select the tracked aircraft using F9.
(b) **Single-Target-Track** mode (STT). Pressing F10 will change to single target mode. The

target designator box will appear on the HUD showing that you are LOCKED onto the target. Return to TWS mode by pressing F10 again. n.b. If your target leaves the radar's field of view the you will return to TWS mode.

(c) **Air Combat Scan** mode (ACS). Use key D to select ACS. This mode is similar to STT but the radar will automatically select the nearest target within 10 miles.

Ground radar - shows range and bearing of ground targets. Range approximately 10 miles.

(a) **Ground-Target-Ranging** mode (GTR). Equivalent to TWS mode of air radar. Able to track many ground targets simultaneously. Select target using F9 and designate with F10.

(b) **Ground-Target-Track** mode (GTT). Your chosen target will be displayed and the designator box will appear on the HUD. Return to GTR using F10.

Moving Map - shows your current position within the combat zone.
Weapon Status - diagram of weapons loaded, which is selected and which,if any, are faulty.
Digital Artificial Horizon - digital equivalent of mechanical instrument.

ILS - instrument landing system
This display helps you line up with the runway centre line and approach the airfield whilst descending along the correct glidepath. The system consists of two radio beams transmitted from the airfield to form a cone with its apex at your touchdown point. All North-South and East-West runways are fitted with an ILS system at both ends. In order for your aircraft to use the ILS system (i.e. become active) you must fly into the cone by approaching the runway from either end, lined up approximately North-South (i.e. on a heading of either 180 or 360) or East-West (i.e. on a heading of either 90 or 270) and with an altitude of less than 5000 feet. The ILS system has a range of approximately 10 miles and the cone is widest at this range. If you see the message "ILS inactive" it means that you are not within the ILS beam and autoland will not operate.

PLAN AND SIDE VIEW
OF RUNWAY AND GLIDESLOPE

SIDE VIEW

GLIDESLOPE
(Up/down guidance)

Optimum approach path

touchdown point

PLAN VIEW
Touchdown

RUNWAY

LOCALISER
(left/right guidance)
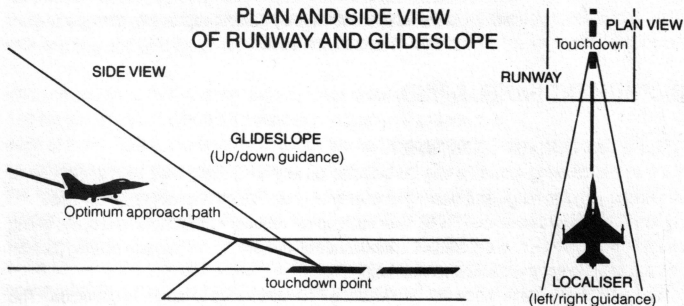
(a) Localiser needle

This is the vertical needle on the ILS display. When you are lined up with the runway centreline, the needle will be in the centre of the display. As you deviate from alignment with the runway centreline, the needle will drift in the opposite direction i.e. drifting to the left will cause the localiser needle to drift right, and vice versa. To correct your approach turn **towards** the needle. As the needle centralises, adjust your heading to line up with the runway. Use the rudder for fine heading adjustments.

ILS OPERATION

PLAN VIEW

RUNWAY

Aircraft offset to RIGHT
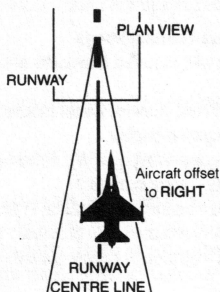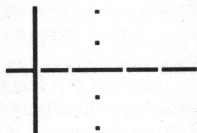
RUNWAY CENTRE LINE

Deviation from the centreline

(b) Glideslope needle

This is the horizontal needle on the ILS display. When you are approaching the runway along the correct glidepath, the needle will be in the centre of the display. If you drift above the optimum glideslope then the needle will drift **downwards** and vice versa. Respond by increasing your rate of descent if the needle is low or decreasing your rate of descent if the needle is high.

GLIDESLOPE

Aircraft too **HIGH** (may overshoot)

Optimum approach path

Runway
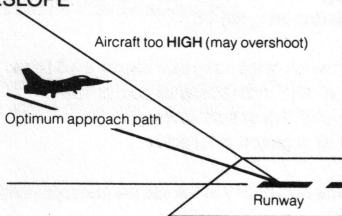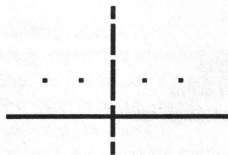
Deviation from the glideslope

To summarise, your ideal approach is achieved by keeping the two needles central. "Fly towards the needle" to correct errors.

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Flight Data

- IAS - indicated airspeed (not true airspeed) knots
- ALT - altitude in feet
- VSI - vertical speed indicator (rate of climb / descent) feet per sec.
- HDG - aircraft heading (direction in which you are flying), degrees
- FUEL - fuel weight. Fuel consumption increases with rpm and even more so if reheat is used.

Zoom Thermal Image
Use with Infra-red Mavericks and Lantirn. MFD will appear blank until target is identified.

Up Front Control Panel (above centre MFD)
Navigation display:
3 modes- Waypoint (W), Airfield (A) and Target (T) selected with the mode select key, F5.
RNG - range in miles
BRG - bearing i.e. direction in which you must fly to reach target
ETA - estimated time of arrival , in minutes and seconds (W and A modes only)
ALT - altitude of enemy aircraft (T mode only)

Waypoint Mode - channels W1 to W5 - waypoints entered during preflight briefing, selected using key F6. W0 is always set at your take-off position.

Airfield Mode - channels A0 to A7 - locations of allied airfields, selected using key F6. Used to navigate your way back to base.

Target Mode - T0 to T3. Used to display range, bearing and altitude of up to four enemy aircraft. Selected using key F6.

To the left of the navigation display are 6 lights:
P - ATARS reconnaissance pod activated   **I** - ILS in range
L - LANTIRN system active   **A** - autoland active
R - air or ground radar active   **T** - transmit callsign active

Below the UFCP you will see the message panel.

Radar Warning Receiver (to the left of the UFCP)
Range approximately 50 miles.
Enemy aircraft - red O   Incoming missile - red X
Allied aircraft - green O   Enemy EW radar - yellow □
n.b. Symbols may merge.

Threat Warning Panel (to the left of the Radar Warning Receiver)
These 5 lights decode various threats to your aircraft:
SA - incoming surface-to-air missile - use chaff or flares & manoeuvre hard!
AA - incoming enemy air-to-air missile - use chaff or flares & manoeuvre hard!
EC - enemy electronic countermeasures being used in an attempt to break your radar lock or weapon accuracy.
IF - incoming enemy fighter aircraft - check radar warning receiver and select T mode on UFCP.
EW - you are being tracked by enemy radar. You may be able to break the lock by flying below 500 feet.

Attitude Director Indicator (to the right of the UFCP)
Otherwise known as the artificial horizon. Shows pitch and roll of your aircraft - particularly useful when in cloud.

Engine rpm Indicator
The engine idles at 60% rpm and at this minimum setting the engine is giving zero thrust. The rpm may be increased to 100% using the throttle control. Additional reheat thrust may be obtained by releasing the throttle control and then pressing it again. Using reheat increases your fuel consumption. Pressing the "decrease throttle" key when in reheat will switch reheat off. To reduce rpm further, release the key and press again.

Undercarriage Lights
3 greens - undercarriage down
3 reds - undercarriage up

Fuel Gauge (on right hand side)
Gauge has two needles, one for internal fuel and the other for external fuel.

Warning Lights
Alert - Illuminates whenever there is a system failure. Check your fault status display.
Eng - engine failure. It *is* possible to do an engine-off landing.....with practice!
Fire - aircraft on fire - eject!
Fuel - fuel low warning
Ext - external fuel tanks empty
W - wheel brakes on
A - airbrake on

Angle of Attack Indicator (to the left of the centre MFD)
Shows angle of wings relative to oncoming airflow.

Vertical Speed Indicator (to the right of the centre MFD)
Shows the rate of climb / descent of your aircraft.

HEAD UP DISPLAY
Superimposed upon your view ahead is essential information such as airspeed, heading,
altitude and weapon aiming symbology.
Indicated airspeed - left hand side vertical scale, calibrated in knots *10.
Altitude - right hand side vertical scale, calibrated in 1000's feet.
Heading - horizontal scale at top, calibrated in degrees *10.
Flight path ladder - shows pitch and roll angles.
Target designator box - appears when aircraft is pointing towards target on radar and target
is within radar range.
Lock-on diamond - appears with designator box when weapon is locked onto target.
The weapon currently armed appears on the bottom left hand corner of the HUD.
RNG - range to target
BRG - bearing to target
Weapon symbology:

M61A1 - cannon	**AGM65D** - IR Maverick
AIM9M - Sidewinder	**AGM65E** - Laser Maverick
AIM120 - AMRAAM	**MK84** - 2000lb bomb
DUR - Durandal	**MK83** - 1000lb bomb
AGM88 - HARM	**MK82** - Snakeye bomb

LOCK - radar locked onto target
IN RNG - weapon locked and in range

LEFT VIEW
Throttle and rpm indicators.

RIGHT VIEW
Mechanical Compass plus Fault Status Panel.

FBW - fly by wire system	**U/C** - undercarriage
RAD - radar	**OXY** - oxygen system
NAV - navigation computer	**LAN** - Lantirn system
HUD - Head Up Display	**ECM** - electronic countermeasures jammer
COM - communications	**RWR** - radar warning receiver
WPN - weapon system	**ILS** - instrument landing system

REAR VIEW
Check for enemy aircraft!

COCKPIT FORWARD VIEW

1 Left MFD

COCKPIT FORWARD VIEW

1. Left MFD
2. Centre MFD
3. Right MFD
4. Radar warning receiver
5. Attitude director indicator
6. Angle of attack indicator
7. Vertical speed indicator
8. Engine rpm indicator
9. Reheat indicator
10. Fuel guage
11. Up Front Control Panel
12. UHF Communications
13. CNI datalink

n.b. Symbology will vary on different computers

14. Data entry panel
15. Threat warning panel
16. Master caution light
17. Engine failure light
18. Fire warning light
19. Fuel low warning light
20. External tanks empty light
21. Undercarriage lights

22. Jettison light
23. Wheel brakes light
24. Air brakes light
25. Eject handle
26. Head Up Display
27. Heading scale
28. Indicated airspeed
29. Altitude
30. Lock-on diamond
31. Target designator
32. Mach number
33. g force
34. Pitch bars
35. Ranging reticle
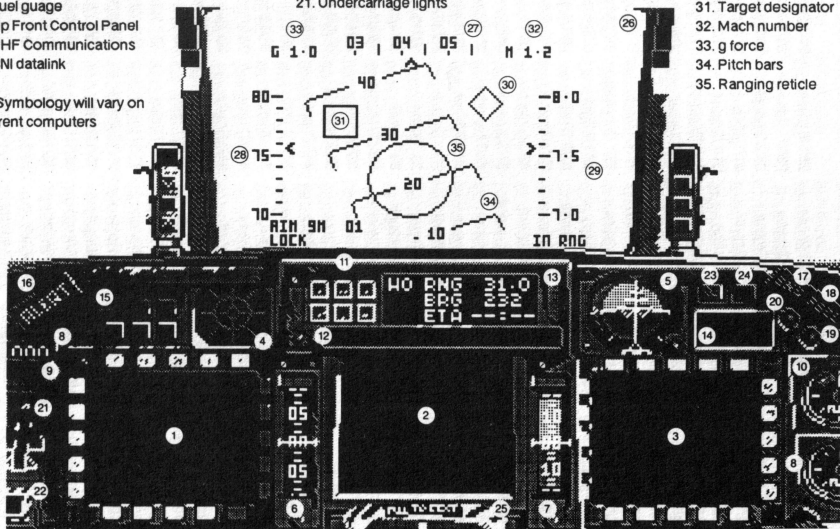
2/1/1/most	11/3/2/guys	21/2/2/mode	28/1/8/given	36/2/3/your	40/3/6/look
2/1/5/kids	11/3/6/ready	21/2/3/gives	28/2/1/this	36/2/4/view	40/3/7/around
2/1/7/heart	14/1/7/five	22/2/3/nose	28/2/2/panel	36/2/5/ahead	40/3/9/clear
2/1/8/with	14/2/1/during	22/2/8/gives	31/1/4/left	37/1/4/across	40/4/1/canopy
2/2/3/worth	14/2/2/flight	22/3/1/this	31/1/7/radar	37/2/2/scale	40/4/2/locked
2/2/8/much	14/2/6/range	22/3/2/direct	31/2/2/launch	37/2/4/left	40/4/6/clear
2/4/3/also	15/1/6/assign	22/3/3/output	31/3/1/your	37/2/5/hand	40/5/1/having
2/4/5/with	15/1/7/target	23/1/6/infra	31/3/3/self	37/2/6/side	40/5/3/about
2/4/6/great	15/2/6/want	24/1/2/beam	32/1/1/alert	37/3/2/scale	40/5/5/feet
3/1/1/miles	15/2/9/your	24/1/4/helps	32/1/2/master	37/3/5/hand	40/5/6/pull
3/1/4/earn	15/3/8/will	24/1/6/line	32/1/4/light	37/3/6/side	41/1/4/keep
3/3/3/your	15/4/3/time	24/2/4/needle	32/2/3/left	38/1/1/pitch	41/1/7/open
3/3/8/flying	15/4/7/stroll	24/2/5/shows	32/2/6/panel	38/1/2/bars	41/1/9/other
5/1/4/world	16/1/3/upon	24/2/8/offset	32/3/1/eject	38/1/5/show	41/2/1/once
5/1/9/pilot	16/1/5/weapon	24/3/2/second	32/3/3/below	38/2/2/centre	41/2/9/degree
5/2/3/pilot	16/1/7/check	24/3/3/beam	32/3/5/centre	38/2/9/small	41/3/3/higher
5/2/6/first	16/1/9/stock	25/1/3/your	32/3/7/when	38/3/4/left	41/3/4/speeds
5/3/1/your	16/2/2/your	25/1/4/ideal	33/1/3/your	38/3/5/hand	41/3/6/pitch
5/3/6/pilot	16/2/5/stores	25/3/7/front	33/1/4/left	38/3/6/corner	41/3/7/rate
5/4/1/active	17/2/3/know	25/3/9/panel	33/1/6/will	38/4/2/speed	41/4/1/during
6/2/1/with	17/2/4/your	26/1/1/radar	33/2/2/engine	38/4/4/given	41/4/4/turn
6/2/7/each	17/2/6/time	26/2/3/right	33/2/6/idle	38/4/9/hand	41/4/6/wings
6/3/6/will	18/1/3/trend	26/2/7/front	33/2/9/about	38/5/3/figure	41/4/7/need
6/4/6/allied	18/1/6/modern	26/3/3/tape	34/1/1/push	38/5/6/bottom	41/5/5/roll
6/4/7/ground	18/2/2/major	26/3/4/scale	34/1/4/until	38/6/2/below	41/5/6/your
6/4/8/forces	18/3/6/flight	26/3/7/left	34/1/6/reach	38/6/3/range	41/6/1/during
7/1/3/begins	18/3/8/will	27/1/3/will	34/2/2/over	38/6/6/find	41/6/5/will
7/2/5/jocks	18/5/2/radar	27/3/6/hear	34/2/5/right	38/7/4/weapon	42/1/1/with
7/3/5/record	18/5/3/will	27/4/1/over	34/2/7/will	38/7/5/will	42/1/2/pitch
10/2/2/centre	19/1/5/will	27/4/4/right	34/3/7/back	40/1/2/time	42/1/5/about
10/2/3/icon	19/1/6/switch	27/4/5/hand	35/1/1/also	40/1/6/free	42/1/9/then
10/2/4/used	19/1/8/radar	27/4/6/side	35/1/4/right	40/1/7/flight	42/2/1/during
10/3/4/left	19/3/4/modes	27/4/8/will	35/1/5/hand	40/2/6/flight	42/2/2/free
10/3/5/hand	19/3/6/will	28/1/1/please	35/1/6/side	40/2/7/will	42/2/3/flight
10/3/6/corner	20/1/7/mode	28/1/2/bear	36/1/1/your	40/2/8/begin	42/3/1/before
10/4/4/right	20/2/6/switch	28/1/4/mind	36/1/3/offers	40/2/9/with	42/3/6/will
10/4/5/hand	20/2/8/radar		36/1/6/round	40/3/1/check	42/3/8/well
10/4/6/corner	21/1/1/linked		36/1/7/vision	40/3/2/your	42/4/9/with
10/4/9/icon	21/1/6/global		36/1/8/from	40/3/3/straps	43/1/3/start
11/1/8/your	21/2/1/this		36/2/2/upon	40/3/5/last	43/1/5/about